

**FINAL**

**Record of Decision  
L34 Munitions Response Site  
(JAAP-004-R-01)**

**Joliet Army Ammunition Plant, Illinois**

**October 2018**

Prepared for:



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**Acronyms and Abbreviations**

°F	degrees Fahrenheit
Advent	Advent Environmental, Inc.
AEC	Army Environmental Command
Army	Department of the Army
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	conceptual site model
CTT	Closed, Transferring, and Transferred
DoD	Department of Defense
e2m	Engineering-Environmental Management, Inc.
EODT	EOD Technology, Inc.
IEPA	Illinois Environmental Protection Agency
IRP	Installation Restoration Program
JOAAP	Joliet Army Ammunition Plant
L34	Former Burning Area
LAP	Load-Assemble-Package
MC	munitions constituents
MD	munitions debris
MEC	munitions and explosives of concern
MKM	MKM Engineers, Inc.
MMRP	Military Munitions Response Program
MNTP	Midewin National Tallgrass Prairie
MRS	Munitions Response Site
msl	mean sea level
NCP	The National Oil and Hazardous Substances Pollution Contingency Plan
NFA	No Further Action
PP	Proposed Plan
RI	Remedial Investigation
ROD	Record of Decision
SI	Site Inspection
SSFR	Site-Specific Final Report
TPP	Technical Project Planning
URS	URS Group, Inc.
U.S.	United States

USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
UXO	unexploded ordnance

### Subject

This Record of Decision (ROD) documents a No Further Action (NFA) decision for the Former Burning Area (L34) Munitions Response Site (MRS) (JAAP-004-R-01), referred to as the L34 MRS at the former Joliet Army Ammunition Plant facility in Will County, Illinois.

The ROD has been prepared by the Department of the Army (Army), which is the executing agency for site activities at the L34 MRS. The remedy described in this ROD was jointly selected by the United States Environmental Protection Agency (USEPA) Region 5 and the Army, with concurrence from the Illinois Environmental Protection Agency (IEPA), the support regulatory agency for the State of Illinois.

### Background

The approximately 3.5-acre L34 MRS is located in the central portion of the former Load-Assemble-Package (LAP) Area, along Prairie Creek to the east of Chicago Road and approximately 0.5 mile north of Central Road. The LAP Area was used to load, assemble, and pack bombs, shells, mines, and supplementary charge munitions for shipping, and included a demilitarization area. The LAP Area was placed on the National Priorities List in March 1989. The L34 MRS was used from the 1940s to the 1950s for open burning of raw explosives, and as a disposal area for demilitarized ceramic M5 mines. The L34 MRS is owned by the Army, but is not in use. The Army intends to transfer the property to the U.S. Department of Agriculture (USDA) for inclusion into the Midewin National Tallgrass Prairie (MNTP). The land surrounding the L34 MRS has already been transferred and is owned by the USDA. The U.S. Forest Service, a branch of the USDA, manages the MNTP property.

The Army has completed various munitions response actions (investigations and removals) at the L34 MRS:

- Under an Installation Restoration Program (IRP) Remedial Investigation (RI), soil, surface water, and sediment sampling determined that chemical environmental contaminants, including munitions constituent (MC)-related contamination, were below remedial goals. The L34 site was listed as an NFA site for soil and groundwater having chemical and MC-related contaminants in the 1998 ROD (AEC 1998). The 1998 ROD (Table 6-1) also indicated that surface water and sediment at L34 did not pose a risk to receptors. Only sites where surface water or sediment posed a risk to receptors were recommended for further action. The scope of this ROD relates to the military munitions issues addressed in the ROD and does not alter the 1998 and 2004 RODs.
- A munitions response (site characterization and surface and subsurface removal) was completed in 2001 to locate, identify, and dispose of surface and subsurface Department of Defense (DoD) military munitions. Upon evaluation by unexploded ordnance (UXO) qualified personnel, none of the munitions recovered were determined to be munitions and explosives of concern (MEC). Munitions-related scrap consisting of M5 mines and nose and base fuzes were encountered, evaluated to determine whether they posed an explosive hazard, and subsequently documented as safe. This 2001 munitions response addressed less than 10 percent of the MRS (EODT 2001).

- A Closed, Transferring, and Transferred Range/Site Inventory Report was completed in 2002. A site visit was completed to collect data. The site visit report indicated a potential for anti-personnel landmines to be present within L34 MRS. The report also indicated MC-related contamination was unlikely. Given the report's findings, the L34 MRS was determined eligible for the Military Munitions Response Program (e2M 2002).
- A Site Inspection (SI) was completed in 2005. However, during planning, the Army decided to only evaluate previously collected data. As such, the SI did not include field work. The SI report indicated that extensive MC sampling was completed under the IRP and that MC-related contamination had been sufficiently characterized. However, the potential for munitions to be present had not been sufficiently characterized because only 10 percent of the MRS was addressed during the munitions response conducted in 2001 (EODT 2001). Based on the confirmed presence of munitions debris (MD), the SI recommended the MRS be further investigated for munitions and land use controls be implemented at the L34 MRS. Additionally, the historical L34 MRS boundaries were decreased to the current MRS boundaries (e2M 2005).
- In 2007, the Army conducted a sifting operation during which soil was removed to 12 inches below ground surface and more than 5,600 cubic yards of soil was sifted to remove DoD military munitions and MD. Although MEC was not encountered during this operation, approximately 1,200 tons of soil and rock, which contained burned debris; 2,500 pounds of MD, which was evaluated and determined to be safe; and 2,500 pounds of other debris were disposed of off-site (MKM 2010).
- In 2015, the Army completed an RI at the L34 MRS to determine whether DoD military munitions were present on the surface or in the subsurface. During the RI, the Army excavated 3,300 linear feet of trenches and 18 test pits. During the RI, there was no MEC encountered, and there was no evidence of MC-related contamination. Pieces of ceramic and glass from demilitarized M5 mines were encountered throughout the site. UXO-qualified personnel inspected this material and documented it as safe. Based on the RI's results and the results of the previous munitions response actions conducted, the Army determined that military munitions did not pose an unacceptable risk to current and future receptors at the L34 MRS. Therefore, the Army recommended L34 MRS for NFA (URS 2016).

### Public and Regulator Coordination

The Army submitted the preferred remedial action, as described in the Final Proposed Plan (PP) (URS 2017), to the USEPA and IEPA for review and comment. USEPA and the IEPA formally concurred with the PP's preferred alternative. The PP was also made available for public comment between April 28 and May 27, 2017. Although the PP indicated that interested parties could request a public meeting during the comment period, the Army did not receive a request for a meeting. Additionally, the public did not submit comments on the PP during the public review.

### Selected Remedy

The L34 MRS is comprised of an area where no unacceptable risks to human health and the environment were identified. The Army determined that military munitions did not pose an

unacceptable risk at the L34 MRS. As such, the Army did not conduct a remedial action or develop remedial action objectives. This ROD selects NFA for the L34 MRS.



This Record of Decision (ROD) documents a No Further Action (NFA) decision for the Former Burning Area (L34) Munitions Response Site (MRS) (JAAP-004-R-1), at the former Joliet Army Ammunition Plant (JOAAP) in Will County, Illinois (**Figure 1-1**).

The ROD has been prepared by the Department of the Army (Army). The Army is the executing agency for environmental response actions at the former JOAAP. The remedy described in this ROD was jointly selected by the United States Environmental Protection Agency (USEPA) Region 5 and the U.S. Army, with concurrence from the Illinois Environmental Protection Agency (IEPA).

## **1.1 SITE NAME AND LOCATION**

The Army developed this ROD for the L34 MRS at the former JOAAP in Will County, Illinois. The former JOAAP facility is located approximately 10 miles south of Joliet and 40 miles southwest of Chicago. The MRS location is presented on **Figure 1-2**.

## **1.2 STATEMENT OF BASIS AND PURPOSE**

This ROD presents the NFA decision for the L34 MRS. The NFA decision was determined in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986, which requires the issuance of a ROD for remedial actions taken pursuant to Sections 104, 106, 120, and 122. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the regulatory requirements for this ROD in Chapter 40 of the Code of Federal Regulations, Section 300.430(f)(5) and Section 300.430(f)(4)(iii).

## **1.3 DESCRIPTION OF SELECTED REMEDY**

The USEPA and the Army have jointly determined that NFA under CERCLA is appropriate at the L34 MRS.

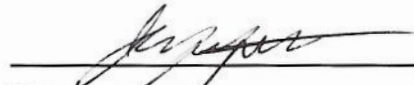
## **1.4 STATUTORY DETERMINATIONS**

The USEPA determined that NFA is appropriate at the L34 MRS to protect public health, public welfare, or the environment. USEPA determined this based on site-specific data that indicates that DoD military munitions (i.e., unexploded ordnance [UXO], discarded military munitions and munitions constituents [MC]) do not present unacceptable risks to human health or the environment.

The NFA decision is protective of human health and the environment and fulfills the statutory requirements of CERCLA §121(b). Five-year reviews are not required because the level of hazardous substances and pollutants or contaminants were below remediation project action limits at the MRS, allowing unlimited use and unrestricted exposure (NCP, 40 CFR §300.430(f)(4)(ii)). Pursuant to the requirements of the 1998 ROD, five-year reviews will still evaluate the area under the IRP.

**1.5 AUTHORIZING SIGNATURE**

This ROD presents the NFA decision for L34 MRS (JAAP-004-R-01) at the former JOAAP. The Army, which is the executing agency, has developed this ROD consistent with CERCLA, as amended, the NCP, and applicable state law.

**1.5.1 Army Signature**

ISAAC C. MANIGAULT  
COL, COMMANDER  
US Army Environmental Command

13 Nov 2018

Date

## SECTION ONE

## Declaration

### 1.5.2 United States Environmental Protection Agency Signature

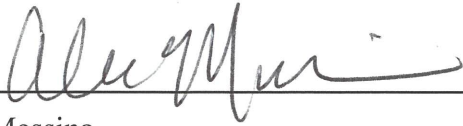
  
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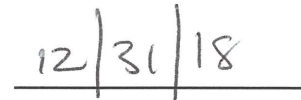
Director, Superfund Division

U.S. Environmental Protection Agency Region 5

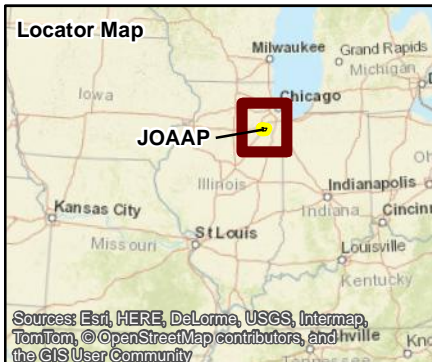
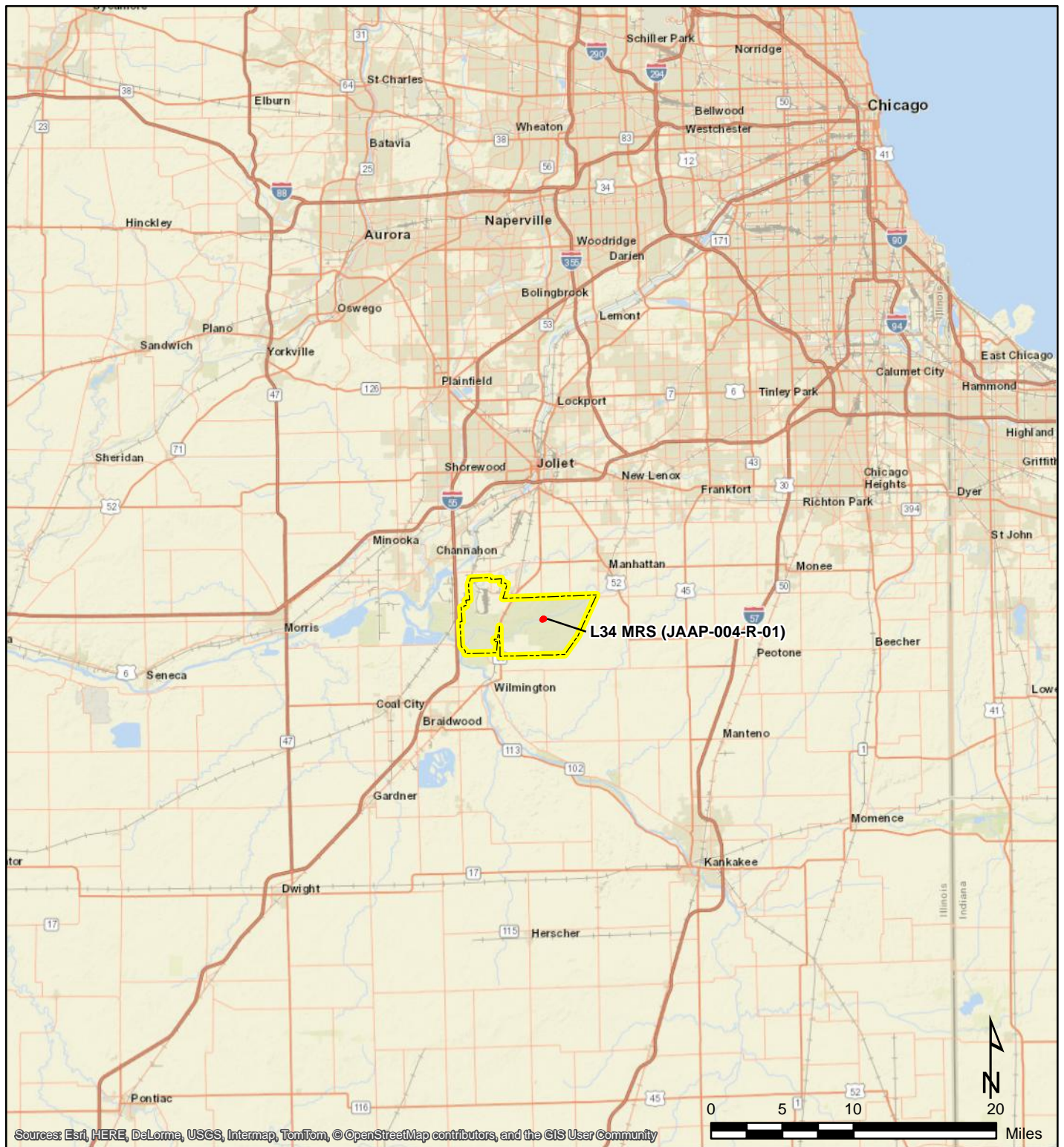
3/27/2019  
Date

**1.5.3 Illinois Environmental Protection Agency Signature**

Alec Messina  
Director  
Illinois Environmental Protection Agency



Date



### Legend

- Former Joliet Army Ammunition Plant
- L34 MRS (JAAP-004-R-01)

**URS**



US Army Corps  
of Engineers®

## Former Joliet Army Ammunition Plant Location Map Joliet AAP Joliet, Illinois

Drawn By: JZ	Date: 7/25/2018
Checked By: ZT	Project No. 60419079/16170871

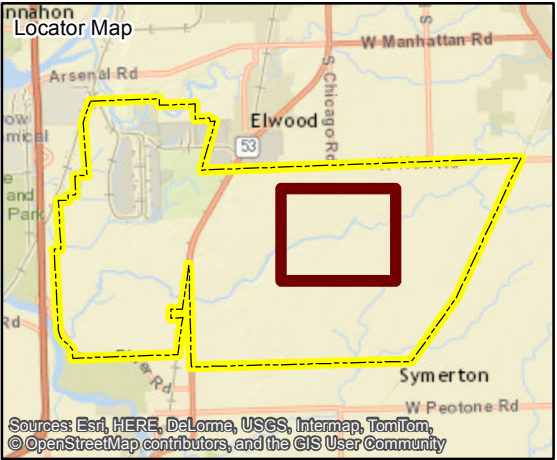
**Figure 1-1**






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Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**Legend**

-  Former Joliet Army Ammunition Plant
-  L34 MRS (JAAP-004-R-01)
-  U.S. Army Property



**URS**



**MRS Location Map**  
L34 Record of Decision  
Joliet AAP, Illinois

Drawn By:	Date:
MDG	5/11/2017
Checked By:	Project No.
ZT	60419079/16170871

**Figure 1-2**



## **2.1 SITE NAME, LOCATION, AND DESCRIPTION**

The approximately 3.5-acre L34 MRS is located within the former JOAAP in Will County, Illinois, approximately 10 miles south of Joliet and 40 miles southwest of Chicago (**Figure 1-1**). Interstate 80 runs east to west approximately 10 miles north of the facility, and Interstate 55 runs north to south, just to the west of the facility. The former JOAAP facility encompassed 36,000 acres. While operational, the former JOAAP was divided into two main functional areas by Route 53, which runs north to south through the central portion of the former facility. The Manufacturing Area was to the west of Route 53, and the Load-Assemble-Package (LAP) Area was to the east. The LAP Area was used to load, assemble, and pack bombs, shells, mines, and supplementary charge munitions for shipping, and included a demilitarization area. The LAP Area was placed on the National Priorities List in March 1989. The L34 MRS is located in the central portion of the former LAP Area, along Prairie Creek to the east of Chicago Road and approximately 0.5 miles north of Central Road.

Approximately 1,500 acres of former JOAAP are still under military ownership, which includes the L34 MRS. While a small complement of Army staff is present at former JOAAP, the facility is not industrially active. The Midewin National Tallgrass Prairie (MNTP) now occupies approximately 19,100 acres of the former JOAAP. MNTP lands are owned by the U.S. Department of Agriculture (USDA) and managed by the U.S. Forest Service. These lands consist mostly of open fields, agricultural areas, or undeveloped woodlands. The Army intends to transfer the L34 MRS to the USDA for inclusion into the MNTP. The land surrounding the L34 MRS has already been transferred to the USDA.

## **2.2 SITE HISTORY AND ENFORCEMENT ACTIVITIES**

Background information regarding historical site activities, investigations, and removal actions completed to date at the L34 MRS is presented below.

### **2.2.1 Installation Restoration Program Investigations**

The Army completed the Installation Restoration Program (IRP) Phase I and Phase II Remedial Investigations (RIs) (Dames and Moore, 1993 and 1994) at the LAP Area from 1991 through 1994. The Army performed these RIs to identify the type, concentration, and extent of contamination throughout the LAP Area at the former JOAAP. A total of 35 sites were investigated, including the L34 MRS. At the time the Army completed the Phase I RI, the L34 MRS was approximately 12 acres and was comprised of Burning Areas 1, 2, and 3. During the Phase I RI, the Army collected soil, surface water, and sediment samples at the L34 MRS. Analysis of the collected samples indicated metals, explosives, volatile organic compounds, semi-volatile organic compounds, polychlorinated biphenyls, and pesticides were present below remedial goals presented in the 1998 ROD. Based on these results, no additional sampling was required during the Phase II RI. The 1998 ROD listed L34 MRS as a NFA site for soil and groundwater (AEC 1998). The 1998 ROD (Table 6-1) also indicated that surface water and sediment at L34 did not pose a risk to receptors. Only sites where surface water or sediment posed a risk to receptors were recommended for further action.

### **2.2.2 Munitions Responses**

In 2001, the U.S. Army Engineering & Support Center, Huntsville, contracted EOD Technology, Inc. (EODT) to complete a munitions response (at the time referred to as an Ordnance Removal and Site Characterization) at the L34 MRS. The objective was to remove surface and subsurface munitions determined by evaluation to be munitions and explosives of concern (MEC). During the removal action, EODT did not encounter DoD military munitions but recovered munitions debris consisting of M5 mines and nose and base fuzes. EODT evaluated this MD and documented it as safe. During this removal action less than 10 percent of the MRS was investigated (EODT 2001).

In 2002, the Army included L34 MRS in a Closed, Transferring, and Transferred (CTT) Range/Site Inventory Report. Although fieldwork was not conducted during the CTT Inventory, project personnel visited the former JOAAP to obtain data required for the inventory. The CTT Inventory determined that L34 MRS was 7 acres and indicated there was a potential for DoD military munitions (personnel landmines) to be present; therefore, the L34 MRS was eligible for inclusion under the Military Munitions Response Program (MMRP) (e2M 2002).

The Army completed a Site Inspection (SI) in 2005 (e2M 2005). During the SI's Technical Project Planning (TPP), it was determined that fieldwork was not needed. The TPP determined that the SI would evaluate data collected during previous munitions response actions. The SI report indicated that extensive MC sampling was completed under the IRP and MC-related contamination had been sufficiently characterized. However, because the 2001 removal action only addressed 10 percent of the L34 MRS, the TPP believed that the MRS was not sufficiently characterized (EODT 2001). The SI report recommended further characterization of L34 MRS and implementation of land use controls (i.e., installation of a fence surrounding the MRS). The Army based this recommendation on the confirmed presence of MD. The SI also refined the historical boundaries of the L34 MRS, which included Burning Areas 1, 2, and 3. After further research and discussions with installation personnel, the Army determined the land associated with Burning Area 3 had been used for agriculture purposes for several years. During this use, DoD military munitions were not encountered. Therefore, the L34 MRS boundary was refined to include only Burning Areas 1 and 2. This refinement decreased L34 MRS' reported acreage to 3.5 acres.

In 2007, the Army completed a sifting operation at the L34 MRS as part of a subsequent removal action. During this operation, the Army excavated a total of 3.5 acres to 12 inches below ground surface (bgs) using heavy equipment and then sifted the soil to remove DoD military munitions and MD. The Army sifted more than 5,600 cubic yards of soil. Although MEC was not encountered during sifting operations, approximately 1,200 tons of soil and rock, which contained burned debris; 2,500 pounds of MD, which was evaluated and determined to be safe; and 2,500 pounds of other debris were disposed of off-site (MKM 2010).

The types of MD recovered during the sifting operation were not identified in the L34 Site-Specific Final Report (SSFR) (MKM 2010). Based on the RI's results and the results of the previous munitions response actions completed, the Army indicated that the majority of MD removed from the site was related to the M5 mine. The SSFR indicated that, although the removal action was completed with no MEC encountered, there was a remote possibility that MEC remains at the MRS.



In 2015, the Army completed an RI at the L34 MRS to determine whether DoD military munitions were present on the surface or in the subsurface. The RI addressed the entire 3.5-acres using a combination of investigative trenches and test pits to a planned depth of 24 inches bgs. A total of 3,300 linear feet of trenches and 18 test pits were excavated. During the RI there was no MEC encountered and there was no evidence of MC-related contamination. Pieces of ceramic and glass from demilitarized M5 mines were encountered throughout the site. UXO-qualified personnel inspected this material and documented it as safe. Trench bottoms, at a depth of 24 inches bgs, were inspected and no other items were found. Other debris encountered during the investigative trenching included railroad ties and spikes, fencing, and wire. Based on the RI's results and the results of previous munitions response actions conducted, the Army determined that military munitions, including MC, did not pose an unacceptable risk to current and future receptors at the L34 MRS. Therefore, the Army recommended L34 MRS for NFA (URS 2016).

The Army completed a Proposed Plan (PP) (URS 2017) for the L34 MRS, which documented the preferred alternative of NFA. The USEPA and IEPA concurred with the preferred alternative of NFA.

### **2.2.3 History of CERCLA Enforcement Activities**

To date, there have been no CERCLA-related enforcement activities at the L34 MRS.

## **2.3 COMMUNITY PARTICIPATION**

In accordance with CERCLA and NCP, the Army was required to issue a PP and seek public participation. The Army made the PP available to the public from April 28 through May 27, 2017 at the former JOAAP, where the Administrative Record file was maintained. The Army published a public notice of availability of the PP and supporting documents in the Herald News (April 26, 2017) and the Free Press Advocate (April 26, 2017). The public notices are presented in **Appendix A**. In addition, the PP indicated that a public meeting could be held if requested by interested parties, but no request was made and no meeting was held. Additionally, the public did not submit comments on the PP during the public review.

## **2.4 SCOPE AND ROLE OF RESPONSE ACTION**

This ROD documents the NFA decision for the L34 MRS at the former JOAAP. The Army in coordination with USEPA and IEPA did not identify an unacceptable risk to human health and the environment at the L34 MRS. The NFA decision documented in this ROD constitutes the final response action for the L34 MRS.

## **2.5 SITE CHARACTERISTICS**

This section presents an overview of the L34 MRS, including physical characteristics, nature and extent of contamination including MC-related contamination and the extent to which military munitions were known or suspected to be present. It also provides the conceptual site models (CSMs) for military munitions and MC.

### **2.5.1 Physical Characteristics**

The former JOAAP is located near the fork of the confluence of the Des Plaines and Kankakee Rivers, within the northern part of the extensive Central Lowlands physiographic province. The site is included within the northern part of the extensive Central Lowlands physiographic province and characterized by relatively flat topography and low relief. The L34 MRS is approximately 3.5 acres.

### **2.5.2 Climate**

The average summer temperatures at the former JOAAP are in the 70 to 80 degrees Fahrenheit (°F) range and average winter temperatures are in the 20 to 30°F range. July is the warmest month of the year with an average maximum temperature of 84°F. January is the coldest month of the year with an average minimum temperature of 17°F. Precipitation is generally distributed evenly throughout the year, but July tends to be the wettest month, receiving an average of 4.3 inches of rain. Average annual precipitation is 37 inches, including an average of 24 inches of snow per year (USA 2015).

### **2.5.3 Topography**

The topography at the L34 MRS is relatively flat, sloping slightly toward Prairie Creek. Elevations range from a high of 620 feet above mean sea level (msl) in the western portion of the MRS along the abandoned railroad bed to a low of 606 feet above msl along the creek bank. The most notable topographic feature is a railroad bed located along the western MRS boundary, which is elevated above the surrounding land surface. Surface water runoff from the L34 MRS flows either north to Prairie Creek or west to a manmade drainage ditch which also discharges to Prairie Creek.

### **2.5.4 Geology**

The former JOAAP lies within an area that was part of the Wisconsin glaciation period, characterized by unconsolidated glacial drift deposits of varying thicknesses (Henry and Wedron Formations) overlying dolomitic bedrock. The Henry Formation is 5 to 25 feet thick and includes sandy and gravelly silts as well as distinct beds of sand and gravel. The Wedron Formation is extensive in upland areas of the former JOAAP and is composed of clayey silt with minor sand. The combined thickness of the Wedron and Henry formations is generally less than 25 feet in the western part of the former JOAAP and increases to 60 to 70 feet in the central part (Advent 2015). According to the USDA Web Soil Survey (USDA 2015), Lawson silt loam and Varna silt loam account for most of the soil present at the L34 MRS. Soil slopes range from 0 to 2 percent in the northern portion to 4 to 6 percent in the southern portion of the MRS. The remainder of the MRS is comprised of Ashkum silty clay loam, with 0 to 2 percent slopes.

### **2.5.5 Hydrogeology**

Groundwater occurs in several aquifers beneath the former JOAAP facility. Regional groundwater flow is generally westward, but is locally influenced by streams, including Prairie Creek. A shallow overburden aquifer is located within glacial drift soils. Below the glacial drift

is a Silurian dolomite water-bearing zone. Deeper Cambrian and Ordovician bedrock aquifers are isolated from the shallow aquifers by low-permeability shale beds of the Maquoketa Group.

Groundwater at the former JOAAP facility has been determined by the IEPA to be both Class I (potable) and Class II (non-potable general resource); however, the IEPA has classified the glacial drift aquifer as Class II because its low yield does not supply usable quantities of potable groundwater. The Silurian dolomite is considered a Class I groundwater resource and it is used as a potable water source on a limited basis in the vicinity of the former JOAAP facility despite elevated levels of sulfate and iron (e2M 2005).

### **2.5.6 Hydrology**

Prairie Creek flows to the west along the northern boundary of the MRS and eventually discharges to the Kankakee River just outside the former JOAAP boundary. Prairie Creek lies within a Federal Emergency Management Agency-identified 100-year floodplain and is subject to flooding. Flooding at Prairie Creek is assumed to be limited to inland flooding events linked to significant precipitation events where precipitation accumulates over several days or substantial precipitation falls over a short period of time. The creek does not appear to receive storm water runoff associated with storm water infrastructure and is assumed to receive runoff only via overland flow from the surrounding area. Beyond the former JOAAP facility boundary, Prairie Creek traverses through sparsely populated agricultural lands (AEC 2004).

### **2.5.7 Sampling Strategy**

During the IRP RI, the analysis of samples (soil, surface water, and sediment) indicated that chemical contaminants were below remedial goals and listed the site as NFA in the 1998 ROD (AEC 1998).

Although MD (M5 mine MD, nose fuzes, and base fuzes) were encountered during munitions responses that the Army conducted (i.e., Ordnance Removal and Site Characterization [EODT 2001] and MMRP RI [URS 2016]), MEC was not encountered. The Army conducted a sifting operation to remove MD, which was completed over the MRS in 2007 (MKM 2010). UXO-qualified personnel evaluated the MD recovered and determined that it was safe for off-site disposal.

The RI (URS 2016) resulted in the collection, evaluation, and synthesis of a large amount of information regarding past DoD-related activities conducted at the former JOAAP. The data included current on-site conditions with respect to the nature and extent of military munitions, including MC. As a result, the Army in coordination with USEPA and IEPA did not identify an unacceptable risk for human or ecological receptors.

### **2.5.8 Nature and Extent of Contamination**

No evidence of MEC or MC contamination was identified during previous investigations at the L34 MRS; therefore, no unacceptable risks were identified for human or ecological receptors.

### **2.5.9 Conceptual Site Models**

A CSM is a representation of a site and its environment that is used to facilitate understanding of the site and the potential contaminant exposure pathways that might be present. The CSM describes potential contamination sources and their known or suspected locations, human and/or ecological receptors present, and the possible interactions between them. The CSM summarizes which potential receptor “exposure pathways” for contamination are (or may be) “complete” and which are (and are likely to remain) “incomplete.” An exposure pathway is considered incomplete unless all of the following elements are present: (a) contamination; (b) a receptor that might be affected by that contamination; and (c) a method for the receptor to be exposed to (i.e., come into contact with) the contamination. If all of these elements are present, an exposure pathway is considered complete. The MEC and MC CSMs for L34 MRS are presented in **Figure 2-2** and **Figure 2-3**.

## **2.6 CURRENT AND POTENTIAL FUTURE LAND AND RESOURCE USES**

The L34 MRS is owned by the Army and is currently not used. The Army intends to transfer the property to the USDA for inclusion into the MNTP. The land surrounding the L34 MRS boundary has already been transferred and is owned by the USDA. The U.S. Forest Service, a branch of the USDA, manages the land surrounding the L34 MRS as part of the MNTP. The MNTP is an ecological area designated by the Illinois Land Conservation Act of 1995 and is the first national tallgrass prairie in the country. The preserve was created with the objectives of enhancing, restoring, and conserving native flora and fauna; providing opportunities for environmental education and research; allowing continuation of existing agriculture; and providing appropriate recreational activities. Installation-wide land use controls/institutional controls are in place under the Installation Restoration Program and will remain in effect for the L34 MRS. Specifically, institutional controls specified in the 1998 ROD indicate that land designated for the USDA cannot be used for industrial or residential use (see Section 9.1.1.6 of the 1998 ROD) (AEC 1998).

## **2.7 SUMMARY OF SITE RISKS**

No unacceptable risks to human health and the environment were identified at the L34 MRS during previous investigations and removal actions.

### **2.7.1 Human Health Evaluation Summary**

Potential human health risks were evaluated at the L34 MRS and it was concluded no unacceptable risks to human receptors were identified; therefore, no further remedial action is necessary to ensure protection of human health.

### **2.7.2 Summary of Ecological Risk Assessment**

The L34 MRS was evaluated for the presence or absence of potential ecological habitat during an ecological site visit conducted in 2015 (URS 2016). It was concluded that there are no known ecologically sensitive species or habitat identified at the L34 MRS (exposure pathway

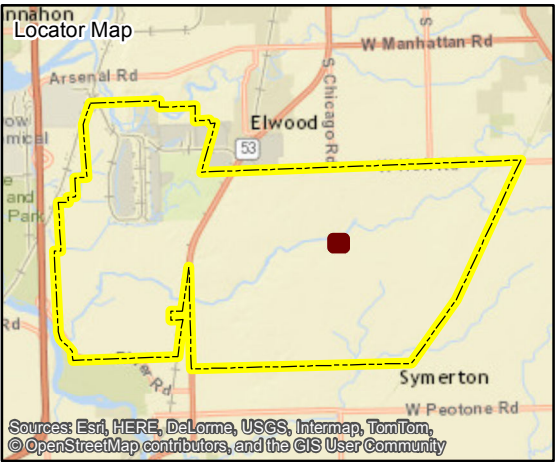
incomplete); therefore, there are no risks and no further remedial action is necessary to ensure protection of ecological receptors.

## **2.8 DOCUMENTATION OF SIGNIFICANT CHANGES**

The preferred alternative presented in the Final PP was for NFA. The NFA decision described in this ROD is unchanged from the preferred alternative detailed in the Final PP (URS 2017).

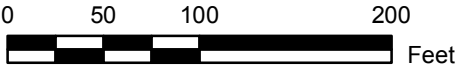


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**Legend**

- Former Joliet Army Ammunition Plant
- L34 MRS (JAAP-004-R-01)
- L34 Trench
- Trench Start/End
- Test Pit



US Army Corps  
of Engineers®

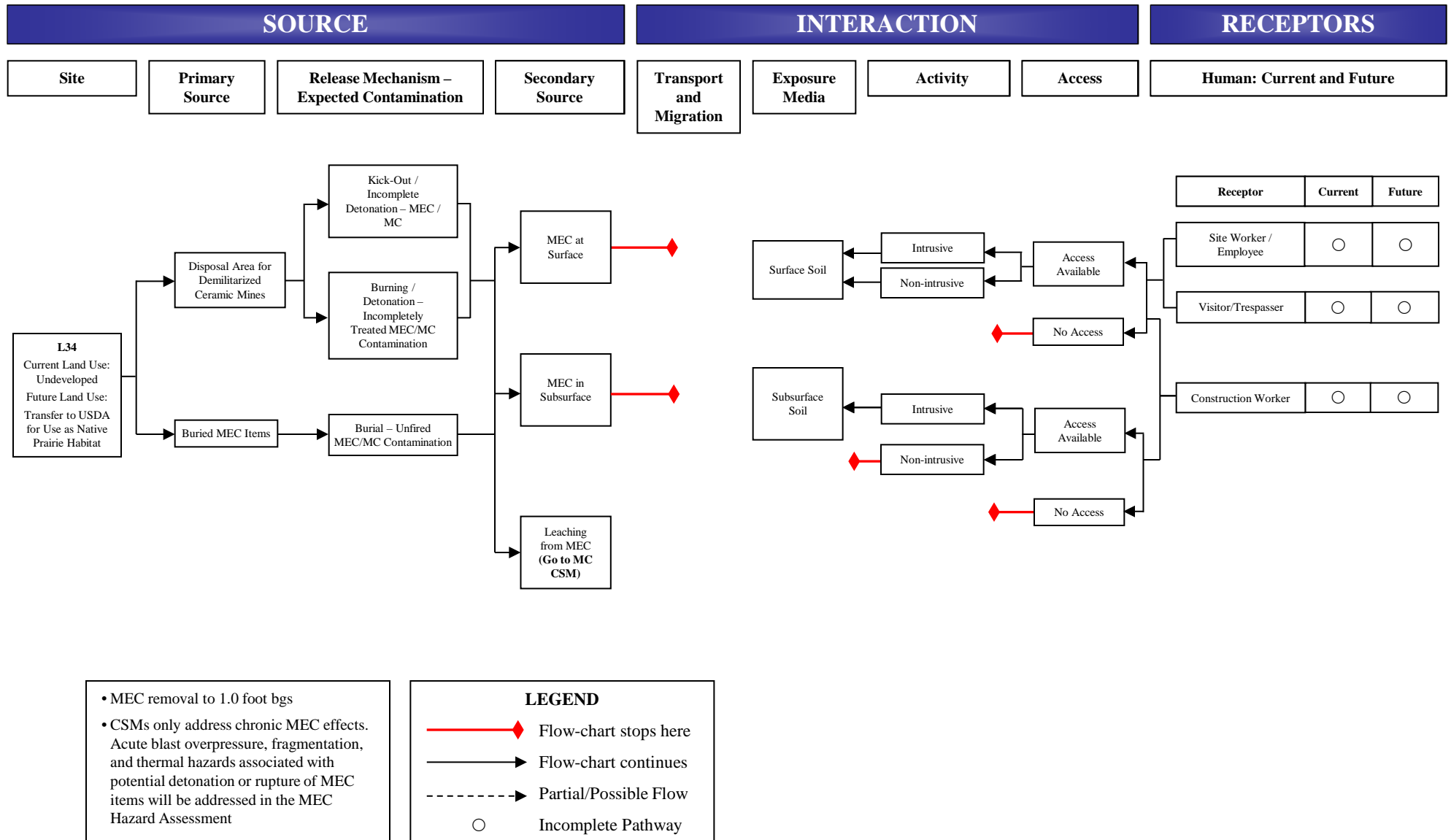
**Trench and Test Pit Location Map**  
L34 Record of Decision  
Joliet AAP, Illinois

Drawn By:	Date:
MDG	6/6/2017
Checked By:	Project No.
ZT	60419079/16170871

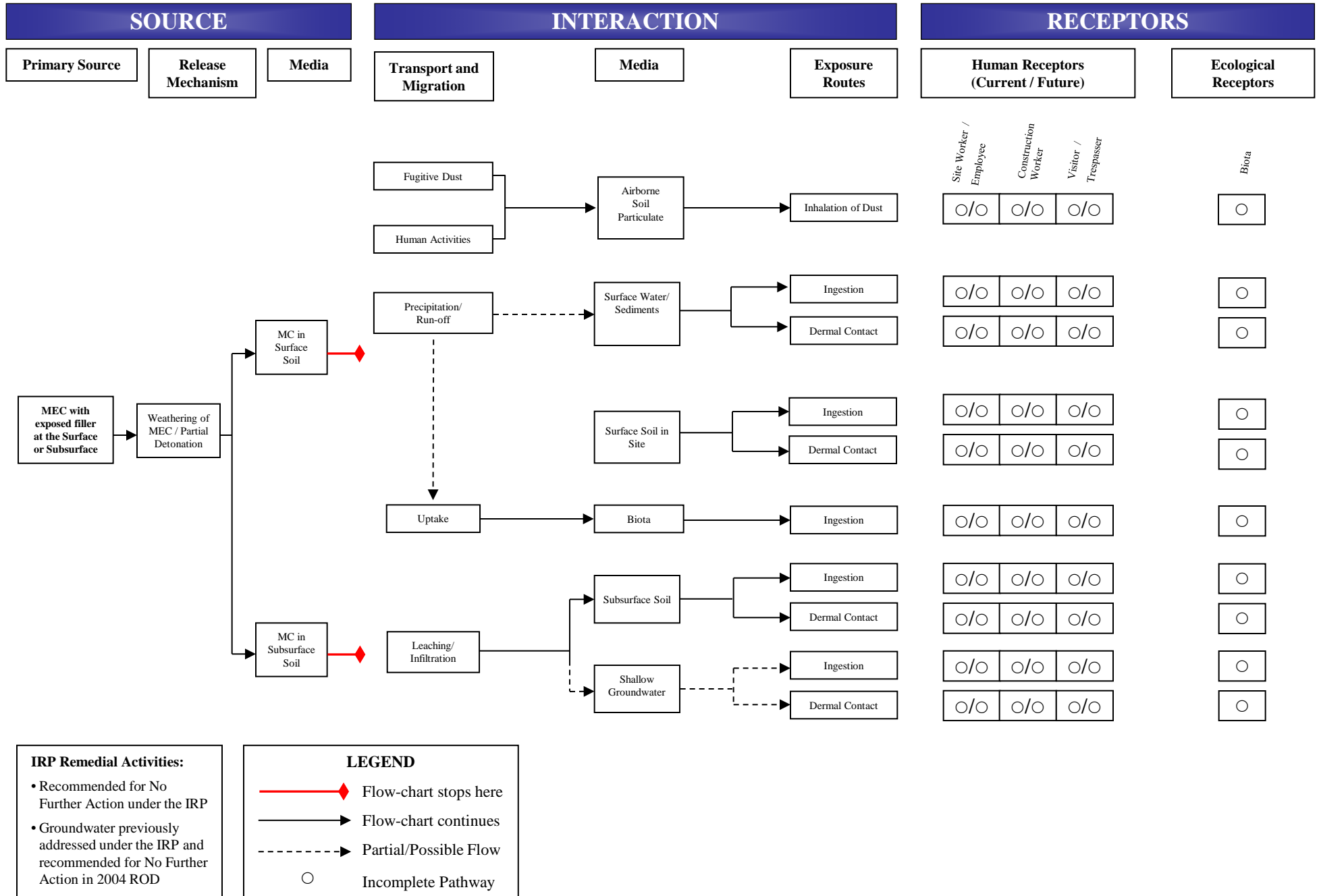
**Figure 2-1**



**FIGURE 2-2  
MEC CONCEPTUAL SITE MODEL (GRAPHICAL)**



**FIGURE 2-3**  
**MC CONCEPTUAL SITE MODEL (GRAPHICAL)**





### **3.1 STAKEHOLDER COMMENTS AND EXECUTING AGENCY RESPONSES**

The RI Report for the L34 MRS was submitted to the USEPA and the IEPA for review and comment. The USEPA and IEPA formally concurred with the findings and recommendations in the final report (URS 2016). The PP recommending NFA for the L34 MRS was also submitted to the USEPA and the IEPA for review and comment. The USEPA and IEPA formally concurred with the recommendation in the PP (URS 2017). The PP was also made available for public comment between April 28 and May 27, 2017 and no comments or questions were received from the public. As indicated in the PP, interested parties had the opportunity to request a public meeting, but no requests were received and no meeting was held.

The newspaper announcement affidavits are presented in **Appendix A**. The selected remedy was not revised based on the public comment period.

### **3.2 TECHNICAL AND LEGAL ISSUES**

There were no significant technical or legal issues raised in the process of developing this ROD. The L34 MRS is collocated with the L34 IRP site and the institutional controls specified in the 1998 ROD (AEC 1998) will remain in effect for the L34 MRS. Specifically, the institutional controls stated in the 1998 ROD indicate that the land designated for the USDA cannot be used for either industrial or residential use. Installation-wide land use controls/institutional controls are in place under the Installation Restoration Program and will remain in effect for the L34 MRS. Specifically, institutional controls specified in the 1998 ROD indicate that land designated for the USDA cannot be used for industrial or residential use (see Section 9.1.1.6 of the 1998 ROD) (AEC 1998).

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- Army Environmental Command (AEC). 1998. Final Record of Decision for Soil and Groundwater Operable Units on the Manufacturing and Load-Assemble-Package Areas, Joliet Army Ammunition Plant. October.
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- Engineering-Environmental Management, Inc. (e2M). 2002. Final Closed, Transferring, and Transferred Range/Site Inventory Report, Joliet Army Ammunition Plant, Illinois. September.
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- MKM Engineers, Inc. (MKM). 2010. Site-Specific Final Report Military Munitions Response Program Site L34, Joliet Army Ammunition Plant, Will County, Illinois. May.
- URS Group, Inc. (URS). 2016. Final Remedial Investigation Report, L34 Munitions Response Site (JAAP-004-R-01). Joliet Army Ammunition Plant, Illinois. June.
- URS. 2017. Final Proposed Plan, L34 Munitions Response Site (JAAP-004-R-01). Joliet Army Ammunition Plant, Will County, Illinois. April.
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- United States Department of Agriculture (USDA). 2015. Natural Resources Conservation Service – USDA, Soil Survey Geographic Database.



# CERTIFICATE OF PUBLICATION

STATE OF ILLINOIS } Ss.  
County of Will,

I, **Janet M. Fisher** do hereby certify that **Eric D. Fisher** the publisher of the **The Free Press Advocate**, now and has been for more than six months prior to the first publication of this notice hereto annexed, a weekly newspaper of general circulation, printed and published in the city of **Wilmington** in said County, and that said advertisement or notice relating to the matter of:

Proposed plan for the former Joliet Army Ammunition Plant,

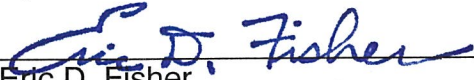
has been published in said paper every        week, one time

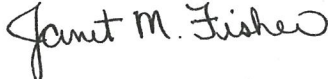
consecutively of the issues commencing        April

ending        April        26 A.D.        2017, which are the dates of the first and last papers containing the same.

Given under my hand this 26th day of        April        A.D.        2017,

Printer's Fee \$        72.60  
Paid        20  
By:

  
Eric D. Fisher Publisher



**"OFFICIAL SEAL"**  
**Janet M. Fisher**  
Notary Public, State of Illinois  
My Commission Expires 12-15-20

*Proposed Plan for the former  
Joliet Army Ammunition Plant*

---

**PUBLIC NOTICE**

**PUBLIC COMMENT PERIOD**

**Proposed Plan for the Former Joliet Army Ammunition Plant**

The Department of the Army invites you to review and comment on the Proposed Plan for No Further Action at the Former Burning Area (L34) Munitions Response Site (MRS) (JAAP-004-R-01) at the Former Joliet Army Ammunition Plant in Wilmington, Illinois.

L34 was initially investigated as an Installation Restoration Program (IRP) site during the Phase I and Phase II Remedial Investigations conducted during the early 1990s. The results of these investigations led to a Record of Decision in 1998 that specified L34 as a No Further Action site. Following the development of the Military Munitions Response Program (MMRP) in 2001, a portion of L34 was subsequently identified as an MRS and has undergone various MMRP investigations/removals prior to this Proposed Plan. The documents resulting from all IRP and MMRP activities are contained in the Administrative Record.

Based on the results of previous IRP and MMRP investigations, and the MMRP removal action, there is no human health or ecological risk present.

Therefore, the L34 MRS is recommended for No Further Action. This recommendation is based on current information and could change in response to public comment or new information.

The Department of the Army, the United States Environmental Protection Agency, and the Illinois Environmental Protection Agency encourages you to comment on the Proposed Plan during the 30-day Public Comment Period, April 28 through May 27, 2017. With prior notice (call 815-423-2870), the Proposed Plan is available for public review Monday through Thursday 8am-4:30pm in the Administrative Record located at the address below. Additionally, a public meeting may be held if requested by the public.

Written comments may be submitted by email to [arthur.m.holz.civ@mail.mil](mailto:arthur.m.holz.civ@mail.mil) or by mail, postmarked no later than May 27, 2017, to the following address:

Arthur Holz, JOAAP Facility Manager  
Department of the Army  
29401 S. Route 53  
Wilmington, IL 60481

Published in the Free Press Advocate on Wednesday, April 26, 2017.

Certificate of the Publisher

The Herald-News

Description: FORMER ARMY AMMUNITION  
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Shaw Media certifies that it is the publisher of The Herald-News.  
The Herald-News is a secular newspaper, has been continuously published daily for more than fifty (50) weeks prior to the first publication of the attached notice, is published in the City of Joliet, County of Will, State of Illinois, is of general circulation throughout that county and surrounding area, and is a newspaper as defined by 715 ILCS 5/5.

A notice, a true copy of which is attached, was published 1 time(s) in The Herald-News, namely one time per week for one successive week(s). Publication of the notice was made in the newspaper, dated and published on 04/26/2017

This notice was also placed on a statewide public notice website as required by 5 ILCS 5/2.1.

In witness, Shaw Media has signed this certificate by J. Tom Shaw, its publisher, at Joliet, Illinois, on 26th day of April, A.D. 2017

Shaw Media By:



J. Tom Shaw, Publisher

Account Number 10102792

Amount \$143.44

**PUBLIC NOTICE**

**PUBLIC COMMENT PERIOD**  
**Proposed Plan for the**  
**Former Joliet Army**  
**Ammunition Plant**

The Department of the Army invites you to review and comment on the Proposed Plan for No Further Action at the Former Burning Area (L34) Munitions Response Site (MRS) (JAAP-004-R-01) at the Former Joliet Army Ammunition Plant in Wilmington, Illinois.

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Written comments may be submitted by email to [arthur.m.holz.civ@mail.mil](mailto:arthur.m.holz.civ@mail.mil) or by mail, postmarked no later than May 27, 2017, to the following address:

Arthur Holz  
JOAAP Facility Manager  
Department of the Army  
29401 S. Route 53  
Wilmington, IL 60481

(Published in the Herald-News  
April 26, 2017)1399251



## COMMENT RESPONSE FORM

### Draft Final Joliet L34 ROD, dated October 2017

Item	Reference	USEPA Comments	URS Actions / Response
1	Executive Summary, 2 <sup>nd</sup> paragraph	<p>“The selected remedy described in this ROD was chosen by the United States (U.S.) Environmental Protection Agency (USEPA) Region 5, in coordination with the Army and the Illinois Environmental Protection Agency (IEPA)...”</p> <p>Note that, per CERCLA Section 120, U.S. EPA and the federal facility jointly select the remedy. As noted, IEPA concurs with the remedy. Please revise language accordingly.</p>	<p>Agree. The second paragraph of the Executive Summary will be revised as follows: “The remedy described in this ROD was jointly selected by the United States (U.S.) Environmental Protection Agency (USEPA) Region 5 and the Army, with concurrence from the Illinois Environmental Protection Agency (IEPA), the support regulatory agency for the State of Illinois.”</p>
2	Executive Summary, first bullet	<p>“Under an Installation Restoration Program (IRP) Remedial Investigation (RI), soil, surface water, and sediment sampling determined that chemical environmental contaminants, including munitions constituent (MC)-related contamination, were below remedial goals. The L34 site was listed as a No Further Action (NFA) site for soil and groundwater <i>for chemical and MC-related contaminants</i> in the 1998 ROD (AEC 1998).”</p> <p>This ROD does not explain the decision-making for surface water and sediment chemical environmental contamination. Please add an explanation about these media.</p> <p>Add “for chemical and MC-related contaminants” to the first bullet of the Executive Summary.</p>	<p>Agree. The first bullet of the Executive Summary will be revised to add the following text: “...the 1998 ROD (AEC 1998). The 1998 ROD (Table 6-1) also indicated that surface water and sediment at L34 did not pose a risk to receptors. Only sites where surface water or sediment posed a risk to receptors were recommended for further action.”</p> <p>The first bullet of the Executive Summary will be revised as follows: “...(NFA) site for soil and groundwater having chemical and MC-related contaminants in the 1998 ROD (AEC 1998).”</p>
3	Executive Summary, first bullet	<p>“The L34 site was listed as a No Further Action (NFA) site for soil and groundwater in the 1998 ROD (AEC 1998).”</p> <p>Add text at the end of this paragraph noting that the scope of this ROD relates to the MEC issues addressed in the ROD and does not alter the 1998 and 2004 RODs.</p>	<p>Agree. The first bullet of the Executive Summary will be revised to add the following sentence at the end of this paragraph: “The scope of this ROD relates to the military munitions issues addressed in the ROD and does not alter the 1998 and 2004 RODs.”</p>

## COMMENT RESPONSE FORM

4	Section 1.3	<p>“The USEPA has determined that NFA under CERCLA is necessary at the L34 MRS.”</p> <p>In conformance with the language of CERCLA Section 120, revise the statement to note that USEPA and the U.S. Army are jointly selecting the NFA remedy.</p>	Agree. Section 1.3 will be revised as follows: “The USEPA and the Army have jointly determined that NFA under CERCLA is necessary at the L34 MRS.”
5	Section 1.4, 2 <sup>nd</sup> paragraph	<p>“Five-year reviews are not required because the level of hazardous substances and pollutants or contaminants were below remediation project action limits at the MRS, allowing unlimited use and unrestricted exposure (NCP, 40 CFR §300.430(f)(4)(ii)).”</p> <p>This section correctly notes that five-year reviews (FYRs) will not be conducted because of this ROD. Add a statement that FYRs will still be performed on the area as an IRP site pursuant to the requirements of the 1998 ROD.</p>	Agree. The second paragraph of Section 1.4 will be revised to add the following sentence to the end of the paragraph: “Pursuant to the requirements of the 1998 ROD, five-year reviews will still evaluate the area under the IRP.”
6	Section 1.5	Insert <i>Douglas Ballotti, Acting Director, Superfund Division, USEPA Region 5</i> for the USEPA signature block.	Agree. The signature page will be updated with Douglas Ballotti’s name and title.
7	Section 2.2.2, 4 <sup>th</sup> paragraph	“During this operations, the Army excavated a total of 3.5 acres to 12 inches below ground surface ...”	Agree. The fourth paragraph of Section 2.2.2 will be corrected to change the word “operations” to “operation.”
8	Section 2.2.2, 6 <sup>th</sup> paragraph	“Based on the RI’s results and ..., including MC, did -not pose an unacceptable risk to current and future receptors at the L34 MRS.	Agree. The sixth paragraph of Section 2.2.2 will be corrected to remove the extra space between “did” and “not.”
9	Section 2.5.7, last sentence	“As a result, the Army in coordination with USEPA and IEPA did not identify an unacceptable risk for human or ecological receptors.”	Agree. The third paragraph of Section 2.5.7 will be corrected to remove the extra period after the last sentence.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

February 13, 2019

SR-6J

Joan F. Jackson  
U.S. Army Environmental Command  
Joliet Army Ammunition Plant  
2450 Connell Road, Building  
JBSA Fort Sam Houston, TX 78234-7664

**Subject: U.S. EPA Comments on the Final Record of Decision, L34 Munitions Response Site (JAAP-004-R-01), Joliet Army Ammunition Plant, Illinois**

Dear Ms. Carawan:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject Final Record of Decision (ROD) for the L34 Munitions Response Site at the Joliet Army Ammunition Plant Superfund Site. Based upon their review, EPA's Office of Regional Counsel (ORC) has provided several comments on the Final ROD. ORC's comments address language in the ROD documenting Site L34 land use controls, editorial comments and citations. Attached please find ORC's comments.

If you have any questions, or require additional information, please feel free to contact me by phone at (312) 353-5577 or by e-mail ([barounis.thomas@epa.gov](mailto:barounis.thomas@epa.gov)).

Sincerely,

A handwritten signature in black ink that reads "Tom Barounis". The signature is written in a cursive, flowing style.

Tom Barounis  
Remedial Project Manager

Attachment

cc: Michael Haggitt, IEPA  
Craig Coombs, USACE  
Zachary Tannehill, AEC  
Candice Freeman, AEC  
Tom Turner, ORC

**U.S. EPA Comments on the Final Record of Decision, L34 Munitions Response Site (JAAP-004-R-01), Joliet Army Ammunition Plant, Illinois**

February 12, 2019

**General Comment**

1. At Section 2.6 (Page 2-6) on “Current and Potential Future Land and Resource Use”, and at Section 3.2, “Technical and Legal Issues” there is limited direction and/or explanation of the Institutional Controls that will be necessary to protect human health and the environment from any remaining unexploded military ordnance or other such hazardous conditions. Please include the following language from the April 2017 Proposed Plan (Section 4, Page 4) in Section 2.6 and Section 3.2: *“Installation-wide land use controls/institutional controls are in place under the Installation Restoration Program and will remain in effect for the L34 MRS. Specifically, institutional controls specified in the 1998 ROD indicate that land designated for the USDA cannot be used for industrial or residential use.”* Also, please include a reference to Section 9.1.6 of the 1998 Record of Decision, from where this specific language derives.

**Specific Comments**

1. Page v, Subject, 2<sup>nd</sup> Paragraph, 2<sup>nd</sup> Sentence: The parenthetical “(U.S.)” in the phrase “United States (U.S.) Environmental Protection Agency (USEPA)” is awkward.” Please delete “(U.S.)”.
2. Page 1-1, Section One, Declaration, 2<sup>nd</sup> Paragraph: See Comment 1.
3. Page 1-1, Section 1.2, Statement of Basis and Purpose, Last Sentence: In the citation of the National Contingency Plan, please include *Section 300.430(f)(4)(iii)*, regarding the selection of a remedy at a federal facility.
4. Page 1-1, Sections 1.3 and 1.4: To be clear, as the remedy decision is No Further Action, EPA recommends that the phrase “...NFA is necessary at the L34 MRS...” be revised to “...NFA is appropriate at the L34 MRS...”
5. Page 2-2, Section 2.2.2, Munitions Responses, 4<sup>th</sup> Paragraph, Last Sentence: For clarity, note the acreage (i.e., “This refinement decreased L34 MRS’ reported acreage to 3.5 acres.”).
6. Page 2-3, Section 2.3, Community Participation, Fourth Line: Change “Herold News” to “Herald News.”